

## **STCG Subcon Subgroup Meeting Minutes**

May 10, 2000

### **Introductions/Announcements (Arlene Tortoso)**

Arlene opened the meeting and introduced Ron Jackson, who came to Bechtel from CH2M-Hill to deploy technologies in the field.

Stan Sobczyk announced that Judit German-Heins had a baby girl.

There is a Groundwater/Vadose Zone Expert Panel meeting on May 24-26. They are planning to review our Carbon Tetrachloride ITRD work and provide feedback. We need to elevate the carbon tetrachloride problem.

Jim Hanson will be making a presentation on the S&T needs process at the STCG Management Council meeting on May 25. The needs process will be combined with project planning activities from now on (e.g., Multi-Year Work Plans). The needs will go to the Subgroups in mid-September and be endorsed in October, and then documented in the IPABS database. The needs are due to HQ in the January time frame. IPABS issues were raised to HQ at the SCFA Mid-Year Review. The system is still under development, but it is the official system and must be used.

### **Review Minutes from Last Meeting (Facilitator)**

The facilitator reviewed the minutes from the March 7, 2000 meeting, and no changes were requested.

### **Updates**

#### **Carbon Tetrachloride ITRD Workshop (Arlene Tortoso)**

The Carbon Tetrachloride ITRD Workshop was held on March 8-9. The purpose was to review the status of the various ITRD subprojects. The PNNL modeling work was reviewed, especially the model inputs, and several studies were cited on the hydrolysis of carbon tetrachloride. They also discussed the Bechtel scenarios on the Partitioning Interwell Tracer Test (PITT) and asked Duke Engineering to prepare a revised proposal for the PITT work. Rick Cameron is the point of contact. Bechtel prepared a cost estimate and assumptions for their support to Duke Engineering. Then Duke Engineering asked the ITRD for funding to prepare the proposal.

Some Subgroup members discussed how to get better model inputs. PNNL is trying to devise an experiment to get better Kd values. Jim Hanson is trying to get additional funds for the carbon tetrachloride work.

Scott Petersen reported that the NETL (formerly FETC) Industry Program is planning a solicitation for subsurface access in difficult geologic conditions and characterization of DNAPLs at Hanford. There was a CBD announcement last week to solicit interest. NETL has received three inquiries so far. The vendors will be here in June to see the area. The NETL solicitation will be issued in August and the award will be made in December for a 2-3-year program that addresses Hanford Site needs.

#### **SCFA Mid-Year Review (Jerry White)**

SCFA is evolving and trying to improve their processes. They are trying hard to attract end-users to their meetings. There were lots of presentations on technical tasks at the Mid-Year Review, lots of redundancy, and ties to the end-users were not clear. Jerry was asked to be part of the lead lab team to help SCFA improve its performance. SCFA has decided that they need to develop a new Strategic Plan that is focused on solving problems rather than just developing technologies.

Hanford representatives are talking with SCFA about getting funding for laser drilling with the cone penetrometer.

#### **ISGR Activities (Ed Thornton)**

BHI and PNNL are definitely pulling together on this project. Ron Jackson is handling the BHI side in defining the requirements. They are scheduled to start drilling in early July. Phase 1 is to find the contamination, and Phase 2 is to move into treatment. The site is up gradient of the ISRM site, so the two technologies will be working in tandem to solve the hexavalent chromium problem in this area.

#### **FY 2001 S&T Needs Process (Mike Truex)**

This year's S&T needs process guidance will be issued as part of the Baseline Updating Guidance (BUG). The schedule has been moved out to match the detailed work planning cycle, so that the updated needs will come to the Subgroup in September. Mark Freshley is working on the S&T Roadmap update with the revised needs.

This year HQ issued guidance to the sites to identify long-term stewardship needs. We also need to look at which current needs have long-term stewardship implications. Gerald Boyd is struggling with how to implement this. Jerry White believes that HQ needs to come to the sites to get inputs on their long-term stewardship needs. A phased implementation would be desirable, starting with the closure sites.

Needs RL-SS01 through RL-SS26 are Remediation-related needs. Needs RL-SS01 through RL-SS09 are Groundwater/Vadose Zone needs, and have been updated to include current activities. They are fairly consistent with last year's needs.

RL-SS10 was changed to better identify the real technical issues related to delineation of burial

grounds. The Groundwater/Vadose Zone Core Projects identified priorities for our needs update activity, as well as issues; these have been included in the revised needs.

More detail was added to needs RL-SS11 and RL-SS12 for the 200-Area and the 100-Area. More 200-Area information was also added to needs RL-SS15 and RL-SS16 (e.g., monitoring aspects, long-term stewardship implications). Need RL-SS17 was updated extensively based on the TTPs recently sent to SCFA. Needs RL-SS25 and RL-SS26 were updated for the 200-Area. Issues were added to RL-SS31 in the Vadose Zone Technical Element. Four new needs (RL-SS43, RL-SS44, RL-SS45, and RL-SS46) were added to the new Risk Technical Element, and are identified in the S&T Roadmap update.

Jim Hanson mentioned that to respond to the HQ IPABS data requirements, each site must provide life-cycle cost savings associated with each need. This is a HQ position that Jim Owendoff has heavily supported. RL has pointed out to HQ that it is difficult to derive a life-cycle cost savings estimate for a specific technology need when the technology has not yet been identified. At the current time, HQ does not regard that as an acceptable excuse for non-compliance with the requirement. BHI has developed conservative estimates for Hanford based on a range of 1-5% of the PBS estimate. RL has pointed out to HQ that the quality of the estimates is questionable and that the use of these estimates as criteria in developing funding priorities is questionable.

#### **New Proposals to SCFA (Bill Bonner)**

In mid-February, SCFA issued a call for proposals on long-term caps. Hanford developed five proposals that were submitted at the end of March, and SCFA is reviewing them now. Two of them were submitted last year, too, and they will be funded. They are:

- Vadose Zone Monitoring of the Hanford Site Surface Barrier
- Hydrologic Characterization of the Hanford Vadose Zone at Representative Sites.

The other three proposals are:

- Long-Term Cover Performance: Side Slope Modifications
- Performance and Risk of Long-Term Covers
- Determination of Long-Term Aging Properties of Asphaltic Barrier Materials.

The funding is for FY 2001, and we won't hear if the proposals will be funded until the end of July. We will be developing the long-form TTPs in August.

#### **Status Report on Selected S&T Needs (Scott Petersen and Mike Truex)**

We are continuing to status progress made to meet our S&T needs. We are now starting to status the second-priority needs. RL-SS13 and RL-SS14 deal with field screening during remediation. RL-SS13 is for metals. In the 100-Area, we need to be able to detect very low levels of contamination, but the state of the art is not there yet. Arsenic was added to the list this year, but arsenic levels at Hanford are three times lower than Washington State background levels, so it

should really drop off the list.

RL-SS14 is for radionuclides. Gamma screening was used in the past as a waste minimization activity. Real-time data management systems are of interest. BHI has used the TechCon Program quite a bit to see what technologies are available.

Nancy Uziemblo asked if our S&T needs status updates would benefit other sites. Jerry White is already pursuing this.

### **Cutting Edge Technology Report Video (Arlene Tortoso)**

Several of the participants stayed to watch the 25-minute video on cleanup technologies used at various DOE sites. The narrator of the video was C. Herb Ward, Chair of the National Research Council Committee on Environmental Remediation Technologies. Dennis Faulk (EPA), Wayne Soper (Ecology), Julie Erickson (DOE-AMT), and John Fruchter (PNNL) were featured in the video. In Situ Redox Manipulation was one of the technologies highlighted in the video.

### **Action Items**

1. Put Ron Jackson on the Subcon Subgroup distribution list (facilitator). Done.
2. Put Gordon Rogers on the distribution list for the Carbon Tetrachloride ITRD meeting minutes (Arlene Tortoso).
3. Send electronic copies of the new SCFA proposals to Ron Jackson (Bill Bonner).
4. Send previous updates on the S&T needs status to Nancy Uziemblo (Scott Petersen). Done.

### **Attendees**

Bill Bonner (PNNL)  
Abdul Dada (BHI)  
Linda Fassbender (PNNL)  
John Fruchter (PNNL)  
Dib Goswami (Ecology)  
Jim Hanson (DOE-RL)  
Ron Jackson (BHI)  
Greg Mitchem (BHI)  
Pete Molton (PNNL)  
Scott Petersen (BHI/TA)  
Gordon Rogers (HAB)  
Stan Sobczyk (Nez Perce Tribe)  
Dan Tano (DOE-RL)  
Ed Thornton (PNNL)  
Arlene Tortoso (DOE-RL)  
Mike Truex (PNNL)

Nancy Uziemblo (Ecology)  
Jerry White (BHI)

**Wrap-Up (Arlene Tortoso)**

The next Subcon Subgroup meeting is scheduled for June 6 in Room 2A-01 of the Bechtel Building. Candidate agenda items include:

- Tritium Issue at Hanford (Wayne Martin)
- Strontium-90 ITRD Update (Arlene Tortoso)
- Carbon Tetrachloride ITRD Update (Arlene Tortoso)
- S&T Needs Status (Mike Truex)
- SCFA Strategic Plan (Jerry White)
- DOE's S&T Portfolio Review (Jerry White)
- Feedback from STCG Management Council Meeting (Arlene Tortoso)
- Status Report on Selected S&T Needs (Scott Petersen)